# Getting Thin Clients right – how to pick a thin client you won't regret

By Gretchen Heber

Lightweight thin clients are no-hard-drive computer "terminals" that are built specifically for remoting into a server in a virtual desktop environment. The usual features of a desktop PC, such as applications, data and memory, are stored in the data center rather than at the user endpoint.

With no moving parts, and fewer hardware components than a traditional PC, thin clients are "hardier" than regular PCs, cost less, and significantly, consume considerably less power.

While early thin clients earned a bad rap for being "too thin" — failing to find the balance between processing power and power usage — modern thin clients offer a smart mix of customizability and energy savings.

As part of a VDI environment, thin clients are easier to deploy and replace. As "dumb" terminals, they are easily managed from a secure datacenter location.

There are a number of thin clients on the market, from Intel's mini-PC NUC (Next Unit of Computing), which offers more features and functionality than many thin clients, to some stripped-down models from manufacturers such as Devon and HP.

So how to choose a thin client? Here are some considerations.

How many monitors does each thin client need to support? What monitor resolution sizes does your thin client need to be able to handle? Various devices have different capabilities in this area. Be sure to take this into consideration as you're shopping.

How does your environment handle graphics? In a Citrix environment, you may want to allow the endpoint to handle some of the graphics processing by utilizing Citrix's System on

a Chip (SOC) feature. In this case, you'll want to be sure your thin client has enough power to handle that. At the same time, you want to balance processing power against energy use.

How expandable or upgradeable is the unit? Can you add more RAM? Does the machine need to have a hard drive or the ability to add a hard drive at some point? Also consider remote display protocol support. Some cheap options don't have the best support, and some vendor-specific thin clients only work with that vendor's protocol.

Which OS, if any, do you want on the machine? Some thin client machines come with a minimal, embedded operating system, while others may have a pared-down version of a standard desktop operating system such as ones based on Linux or Windows.

How many advanced features do you need? Browser redirection, for example can add to the thin client's complexity and defeat the purpose of utilizing slimmed-down endpoints.

Do you want removable media ports? In a properly administered Citrix environment, the threats from files introduced by flash drives, for example, can be mitigated, but security is nevertheless something you'll want to consider.

How much do you want to spend? Of course, you need to consider cost and how thin-client pricing factors into your overall system budget. Thin-client machines come in all shapes and sizes, with prices ranging from $99 up to $1,000 or more.

While you may have some lingering dislike of thin clients from a bad experience with early-generation machines, as you can see, the category has matured to a point where it's possible to select the right thin-client machine for your network environment and your company's business needs.